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Heart Butte Resource Management Plan

March 3, 2006

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HEART BUTTE RESERVOIR
FIVE YEAR RESOURCE/OPERATIONAL MANAGEMENT PLAN

Mission Statements

The Department of the Interior's mission is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to tribes.

The Bureau of Reclamation's mission is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public

PROJECT NARRATIVE

SECTION 1 – INTRODUCTION AND OVERVIEW

1.1 INTRODUCTION

The Bureau of Reclamation (Reclamation) is the federal agency responsible for administering lands and resources associated with Heart Butte Reservoir. The Bismarck Office of Reclamation's Dakotas Area Office is preparing a Resource Management Plan (RMP) for the reservoir. The National Environmental Policy Act of 1969 (P.L. 91-190 as amended) (NEPA) is the basic national charter for protection of the environment. NEPA requirements direct Government agencies to assess the effects of their actions. The regulations implementing NEPA provide several procedural avenues to determine if or how this requirement applies to a particular Federal action. Reclamation's activities at Heart Butte Reservoir include the continuation of normal operations in managing the natural resources and facilities. Because these activities shall not have a significant effect on the environment, and issues are primarily administrative in nature, a Categorical Exclusion Checklist (CEC) will be prepared for the RMP.

1.1.1 RESOURCE MANAGEMENT PLAN AUTHORITY

Title 28 of P.L. 102-575, Section 2805 (106 Statute 4690, Reclamation Recreation Management Act of October 30, 1992) provides Reclamation with authority to prepare RMPs. The act further provides that each RMP shall be consistent with applicable laws (including any applicable statute, regulation, or Executive Order), shall be developed in consultation with appropriate heads of federal and non-federal departments or agencies, the authorized beneficiaries of any Reclamation project, and with appropriate public participation. Each RMP shall provide for the development, use, conservation, protection, enhancement, and management of resources of Reclamation lands in a manner that is compatible with the authorized purposes.

Reclamation's Recreation Management Policy (LND P04) defines Reclamation's overall responsibilities and establishes the basic principles for planning, development, management, and protection of public recreation resources on Reclamation's lands and waters. One of the principles outlined in this policy is to: "Conduct necessary planning studies, research, assessment, and public involvement processes, in conjunction with managing partners where possible, to provide recreation facilities commensurate with public needs and Reclamation responsibilities and objectives".

The Federal Water Project Recreation Act of July 9, 1965 (Public Law 89-72) governs the Reclamation's management and appropriations for all reservoirs within their jurisdiction, including Lake Tschida. Reclamation's authority for development of recreation facilities or wildlife habitat is limited by the provisions of P.L. 89-72. In summary, section 3 of the act states that in the absence of a non-Federal managing agency, Reclamation may only provide minimum basic facilities.

The intent of Public Law 89-72 is to encourage local agencies to assume management responsibilities for recreation areas on Reclamation lands that do not have a national significance. If no local interests assume management, then Reclamation is strictly limited to providing only minimum facilities for health and safety reasons.

1.2 PURPOSE

The development of a RMP for Lake Tschida is to provide the framework that will enable managers to make sound land use and resource management decisions that are consistent with overall management objectives, minimize conflicts among uses and have public support. This RMP is prepared to help guide the management of lands and waters, and assist in the preparation of annual work plans that reflect sound management decisions. The plan shall be in sufficient detail as to direct future development and use of resources while flexible enough to allow for the resolution of day-to-day operational issues. This RMP is designed to be used, referenced, revised and updated annually as needed.

1.3 SCOPE

This RMP should achieve the following:

- Set 5-year goals for managing the project area
- Establish management units
- Assign each management unit a classification category in accordance with the authorized purpose for which it is to be managed
- Develop management unit packets that list the work to be accomplished within the 5-year period with a time and costs schedule to accomplish the work for each management unit.

Appendix ____ has maps showing all of the management units.

This RMP will be a working resource document and tool for managers and staff. It will be a useful reference for the day to day operations of the Heart Butte Reservoir facilities and associated land and water resources. The information in this document shall permit the fluid and continuous management, development, and operation and maintenance work whenever personnel transition changes occur at the Reservoir headquarters. The RMP describes the present operations of thirty nine management units identified within five land resource codes. The five land resource codes include

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- (01)-Project Operation,
- (02)-Recreation,
- (03)-Multiple Resource Management,
- (04)-Group Use and
- (05)-Cabins/Trailers.

Reclamation has shifted from an agency whose mission was primarily one of constructing and developing water resource projects to a role of operation and maintenance of existing facilities with an increased emphasis on resources management. An assessment of this new role has identified the need for better and proper utilization of public resources under the jurisdiction of Reclamation. An RMP is an important tool in obtaining this goal.

1.4 PUBLIC INVOLVMENT

The public involvement plan consists of previous data collected through the circulation of surveys, feed back from cabin association meetings, and the input from area residents, land owners and recreation users to the Heart Butte operations manager, David Herr, and his crew.

Public meetings to discuss the draft RMP were held in March of 2006. Comments were also accepted following the annual Heart Butte Cabin Association meeting held in April of 2006 in Bismarck, ND.

Summaries of the surveys and the subsequent public meetings will be attached as appendix____ in the appendices of the RMP.

SECTION 2 -- PROJECT DESCRIPTION

The following generic descriptions will pertain to all management units. Any specific discussion required of the following categories for a particular management unit will be further described in the management unit folder.

2.1 AUTHORITY:

The Heart Butte Project was authorized under the Flood Control Act of 1944 for construction by Public Law 534 for the primary purpose of flood control and irrigation. The project construction was started in 1948 and finished in 1949. The Act also provided construction appropriations for secondary benefits, such as, recreation and fish and wildlife.

2.2 PROJECT PURPOSES:

Lake Tschida is the only sizable body of water in the area and it has become a popular recreation center. Picnicking, swimming, boating, camping, water skiing, and fishing are popular summer activities. Fall and winter activities include hunting, ice fishing, snowmobiling, and ice skating. Seven designated areas along the shoreline have been permitted as group use to the Boy Scouts, other youth groups and civic community clubs, and 225 sites for summer homes and trailers have been permitted. The more remote areas are permitted for agricultural purposes.

The total area within the boundary of Heart Butte Reservoir is 10,975 acres (Sharon Balkowitsch, BOR, 05/14/2004). The water surface area at 2064 msl elevation, is 3,400 acres and the remaining upland total is 7,575 acres. Reclamation manages these upland acres for:

Project operation	34 acres
Recreation	225 acres
Multiple Resource Management	6,575 acres
Group use.....	246 acres
Cabins and trailers	217 acres
Miscellaneous areas	278 acres

History

The National Park Service developed the recreation plan for Heart Butte Reservoir and lands in 1952. Thirteen wildlife management areas were identified and ultimately developed and managed by the North Dakota Department of Game and Fish Department. In addition to identifying 13 wildlife areas the recreation plan identified approximately 4,150 acres of "Project Lands", adjacent to the reservoir or Heart River, but were not designated for wildlife, recreation, or reservoir management purposes. According to Interior et. al. (1955) these "other" lands were deemed unnecessary for wildlife or other recreation needs at the time and were made available for livestock grazing permits that continue to be issued today.

Public use of Heart Butte Reservoir had been administered by the North Dakota Game and Fish Department for recreation and wildlife development from February 22, 1952 (Contract No. I79r-2604) through May 25, 1979 (Contract No. 14-06-600-1783, Supplement No. 3). The

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Department discontinued recreation management on May 25, 1979, but continued wildlife management until 1994. The Department “relinquished management responsibility for the Heart Butte Wildlife Management Area, effective January 1, 1994.” (August 8, 1992 letter from NDGF signed by Ronald A. Stromstad, Chief, Wildlife Division).

2.3 LOCATION:

Heart Butte Dam and Reservoir, or Lake Tschida as it was renamed in 1958 by Public Law 85-562, 72 Stat, 424, is located in Grant County in the southwestern part of North Dakota southwest of Bismarck about 70 miles and about 65 miles north of the South Dakota State border. More specifically, Lake Tschida is located on the Heart River about 18 miles south of Glen Ullin, North Dakota (Figure 1).

2.4 HISTORY

Lake Tschida derives its name from Michael Tschida Sr. born in Vienna, Austria in 1866, who immigrated to the United States in 1890. He settled in Mandan, North Dakota and began work for the Northern Pacific Railroad. In 1900 he moved to Glen Ullin, worked in real estate and was elected the first mayor of Glen Ullin in 1906. He pushed for the construction of the Dam knowing what the benefits would be. He passed away in 1956 in a Minot nursing home at the age of 90.

2.5.1 STATUS

2.5.1 OPERATIONS SUPPORTING PROGRAMS

2.5.1.1 SAFETY PROGRAM:

The safety program for Heart Butte will follow the guidelines prescribed by the Reclamation Safety and Health Standards Manual. It will incorporate the procedures prescribed in the Emergency Action Plan and the Standing Operations Plan.

All facility features such as the dam, outlet works, river immediately below the dam, and the emergency spillway are routinely monitored to assure the safety of the public and Reclamation employees.

Employees are trained in first aid and CPR. First aid kits are located in the Heart Butte shop and in all vehicles. Weekly safety meetings are conducted and Job Hazard Analysis's (JHAs) are written to assure job safety procedures are being considered and followed. Additional safety training is provided for chemical spraying, boat operation, equipment operation, defensive driving and anything else deemed necessary by the DKAO Safety Officer.

2.5.1.2 PROJECT SECURITY PLAN:

Since September 11, 2001, Reclamation entered into a cooperative agreement with the Grant County Sheriff's Department for additional patrols/surveillance of the Dam during elevated threat levels. Other security upgrades, during elevated threat levels, included placement of additional signage and buoys to keep people away from the dam; and closure of the Downstream Recreational Area.

The Site Security Plan for Heart Butte is scheduled to be completed in 2006. Copies of this plan will be kept at the Heart Butte Headquarters Office and in the Dakotas Area Office in Bismarck, ND. The purpose of the Site Security Plan is to document existing security systems, specific implementations of Reclamation's Threat Condition Protective Measures. This plan should be used in conjunction with other documents such as the Emergency Action Plan (EAP), the Standing Operations Plan (SOP), and the Heart Butte Risk Assessment Report.

2.5.1.3 FLOOD CONTROL PLAN:

Lake Tschida has a total capacity of 214,169 acre-feet (see figure ____ in Appendix ____) at the top of the exclusive flood control (elev. 2094.5 feet m.s.l.), of which 147,027 acre-feet are for flood control storage, 67,142 acre-feet are for active conservation, and 5,227 acre-feet are for dead storage. The lake covers an area of 6,738 acres at the top of flood control (elevation 2094.5 feet m.s.l.)

The glory hole spillway crest elevation is 2064.5; auxiliary spillway crest elevation is 2109.0; and the dam crest elevation is 2124.0. The design maximum surface or probable maximum flood elevation is 2119.5.

The maximum reservoir elevation recorded to date (April 9, 1952) was 2086.28, 21.78 feet above the glory hole spillway crest, and the minimum elevation (October 25, 1991) was 2049.0, 15.5 feet below the glory hole spillway crest. The website www.usbr.gov/gp/hydromet is available to search for current and/or historical elevation readings.

All three trailer areas are located within the flood control zone, below 2094.5 feet m.s.l., and the majority of trailers would be partially or totally flooded at 2094.5.

Reclamation policy requires that all trailers, sheds and decks remain readily portable. Wheels, axles, and hitches must remain attached and in a usable condition.

2.5.1.4 IRRIGATION PLAN:

The Heart Butte Unit was authorized as a part of the Heart River Unit by the Flood Control Act of December 22, 1944, Public Law 534, which approved the general plan as set forth in Senate Document 191 and House Document 475, as revised and coordinated by Senate Document 247, 78th Congress, 2nd session. Construction of the initial phase of the unit began in April 1948 and was essentially completed by December 1949. Date of closure or first storage was October 4, 1949.

There are 13,100 acres of authorized irrigable acres, 10,000 acres covered under Fonsi MS-150-92-03 lying in scattered tracts along the Heart River from Heart Butte Dam to the Missouri River. The principle irrigated crops produced include alfalfa and corn to support livestock needs.

Heart Butte Dam and Reservoir are operated by Reclamation. The Western Heart River Irrigation District is operated and maintained by the Western Heart River Irrigation District. Private irrigators in the Lower Heart Irrigation Company operate and maintain individual irrigation systems.

2.5.2 NATURAL RESOURCES SUPPORTING PROGRAMS

2.5.2.1 FIRE PROTECTION PLAN:

Reclamation is in the process of developing an agency wide policy as it pertain. When that is completed a comprehensive Fire Management Plan for Heart Butte will be included as Appendix _____. Until then the following is the current policy:

Structures located on Heart Butte Reservoir lands are protected from fire by gravel or groomed (mowed) surfaces. Cabin and Trailer permittees are expected to keep their lots free of debris and well manicured to prevent fire spread.

Heart Butte has one pull-type fire pumper (250 gallon) that can be used by qualified personnel to suppress small spot fires and to protect government facilities. All wildfire and structural (cabin and trailer area) suppression will be performed by either the Glen Ullin (701-348-3113) or Elgin (701-584-2222) Rural Fire Departments. 911 services is also available at Heart Butte Other Emergency numbers are:
Grant County Sheriff (701)622-3331

2.5.2.2 FENCE MANAGEMENT PLAN:

External fence (4-strand barbwire) exists around the entire boundary of Heart Butte Reservoir with the exception of ½ mile located in the far northwest corner of the reservoir lands. This section of boundary is scheduled to be fenced by the spring of 2008. Several miles of internal fence (3-strand barbwire) has been constructed and will continue to be constructed as needed to separate pastures in the grazing program and protect natural resources from public encroachment uses.

Repair and maintenance of many fences are the responsibility of the grazing permittees. In areas where there is no grazing permitted, Reclamation staff perform any needed construction and/or repairs.

Several miles of old dilapidated fence, that serves no purpose, is being inventoried. These fences will be removed by Reclamation staff as work schedules permit.

2.5.2.3 VEGETATIVE MANAGEMENT PLAN:

Vegetation is managed at Heart Butte for wildlife habitat and to enhance public use. A variety of tools are used to aid in the management.

2.5.2.3.1 Grazing

Reclamation's management of grazing lands changed in 2006 from season long grazing to a rotational grazing program to improve the habitat and create a healthy environment for the public's use. A copy of a sample grazing permit is included as appendix_____.

2.5.2.3.2 Haying

A haying plan is used to manage grasslands as well as provide habitat and food for wildlife. A copy of a sample agreement is included as appendix_____.

2.5.2.3.3 Food plots

Food plots are provided to enhance wildlife habitat. Specifics of food plots are dealt with in the individual management units, and are described in the specific contracts. A sample foodplot contract is included in Appendix_____.

2.5.2.3.4 Tree plantings

Trees are planted in wildlife and recreation areas to enhance wildlife habitat and recreation opportunities. Individual management units will deal with specific tree plantings in their plans.

2.5.2.3.5 Controlled burns

Since Heart Butte Reservoir lands contain a large amount of native prairies, prescribed burning would be an effective tool in managing native grasslands.

The possibility of using trained and qualified fire staff from Reclamation or another agency (i.e. U.S. Fish & Wildlife Service, ND Game & Fish Department, or Tribal) to conduct prescribed burning operations is a viable option.

2.5.2.3.6 Weed Control

A weed control plan is part of the Integrated Pest Management plan for Heart Butte. This plan deals with control of noxious weeds and undesirable vegetation. Weeds are controlled to meet North Dakota noxious weed laws. A copy of the Integrated Pest Management plan is included as appendix_____.

2.5.2.4 CULTURAL/HISTORIC RESOURCES PLAN

In order to determine which prehistoric and historic sites on Reclamation lands are significant, or should be protected, they need to be evaluated for eligibility for nomination to the National Register of Historic Places (NRHP). Certain criteria are used to determine eligibility. For instance, if a site has integrity, is associated with a prominent person, has unique characteristics or is typical of a certain style, it may be eligible. All the historic sites are in various stages of disrepair, though, and because they lack integrity (there are no complete structures) are not eligible for nomination to the NRHP.

Prehistoric sites are more often judged on their ability to give information or answer research questions. Evaluations normally require archaeological testing to determine if buried cultural deposits exist. Along with a limited number of one meter by one meter pits, the assessment usually includes a laboratory analysis of artifacts and samples. Until a site has been tested, it is assumed that it is eligible.

At Heart Butte Reservoir, Reclamation has worked to survey their lands for cultural resources. Over the last ten years, we have also contracted with University of North Dakota to test a number of sites that potentially appeared to meet the criteria for nomination eligibility. About a dozen of those tested meet the qualifications and they need to be protected. Some of these sites are in or near cabin and trailer or recreation areas, but most cabin and trailer areas either have no known cultural resource properties, or sites that are present which have been determined ineligible for nomination to the NRHP. Every year there are “home improvement” projects around cabins and trailers which receive consultation between the State Historic Preservation Officer (SHPO) and the Reclamation archaeologist. In conjunction with the SHPO, the Reclamation archaeologist is developing a map delineating areas which can be exempt from consultation in the future. Some areas may be marked as exempt from certain types of projects, but may need monitoring of deeper ground disturbing undertakings such as putting in a drain field. The Heart Butte manager will have a copy of the map. All marked places will still be subject to archaeological standards of notification if cultural resources are discovered.

There is a realization that sites along the reservoir shoreline have been impacted by the rising and lowering of water levels. Wave action and the erosion it causes have washed away important artifacts and stratigraphy. Some sites which were significant before erosion destroyed cultural deposits may still have intact deposits below the waterline. One site, Beadmaker, which was being eroded, has had its shoreline stabilized. Other sites, though, can be protected or excavated. As part of the cultural plan, the Reclamation archaeologist, in conjunction with SHPO and working with the Heart Butte manager, will examine which sites would benefit by certain protective measures. These may include added testing or excavation, and/or stabilization, or just checking reservoir levels or vegetation encroachments.

Vandalism and looting damage cultural resource properties and steal information about the nation’s heritage. Collection of artifacts was common before the land was federal property, and at least one rock shelter was been trashed after cabins and trailers were built. On the other hand, several local collectors have provided locational information to archaeologists working in the area over time. Signage is one method of deterring destructive behaviors and the regional office is in the process of designing signs using Reclamation’s visual identity which can be put at Heart Butte and other Reclamation lands. Our brochures state that collection of artifacts or paleontological specimens is against federal and state law. While vandalism and looting of cultural sites do not appear to be a problem at present, there is evidence of such activities at

paleontological sites (see page ____). Training of management personnel and periodic monitoring of sites will be another part of the cultural plan in order to maintain that level of protection. Those caught collecting fossils or cultural resources or vandalizing such sites are breaking the law.

Part of any RMP should include the element of public education. There is an interpretive sign as part of the kiosk at the entrance to the southern area of the lake explaining some of the cultural history of the area. There may be opportunities to heighten public awareness of the prehistoric and historic cultural heritage of reservoir lands elsewhere in cabin/trailer or camping areas as well as describe our function and mission to our recreational customers.

Finally, updating cultural resource maps, developing a complete spreadsheet, and entering Global Positioning System (GPS) data would make managing the cultural resources easier even though access would be restricted. Information regarding when the site was recorded, the type of site it is and what time period it may represent, what work has been done there and by whom, its eligibility for nomination to the NRHP, and other pertinent facts could be entered.

2.5.3 RECREATION SUPPORTING PROGRAMS

2.5.3.1 SAFETY:

The safety program for Heart Butte will follow the guidelines prescribed by the Reclamation Safety and Health Standards Manual. It will incorporate the procedures prescribed in the Emergency Action Plan and the Standing Operations Plan.

2.5.3.2 LAW ENFORCEMENT AND FACILITIES SECURITY

Establishing law enforcement at Heart Butte was a major concern in the late 1970's and early 80's. Since that time legislation was passed enabling Reclamation to enter into a contract with the Grant County Sheriff's Department allowing federal funding payment for local law enforcement services within public use areas. An orderly operation has been restored as a result of the contract. The current contract term is five years and expires on September 30, 2006. It is anticipated that a new contract will be negotiated and entered into between Reclamation and the Grant County Sheriff's Department beginning in 2007.

Cabin and Trailer owners had requested extending the contract to provide security to their permitted sites during the winter months. Reclamation is unable to address that request because the legislation specifically identifies service to public use areas. The cabin and trailer areas are private use permit sites and law enforcement provided to those areas is a result of tax payments to the county. Any winter patrol of the cabin/trailer areas would have to be negotiated between the Heart Butte Cabin Association and the Grant County Sheriff.

Hunting and fishing regulations are governed by state law and are enforced by ND State Game and Fish Department Conservation Officers.

Law enforcement policy and issues should be coordinated with the Regional Law Enforcement Officer, who is in the Great Plains Regional office in Billings, MT. The phone number is 406-247-7617.

A copy of the Law Enforcement Contract is included as Appendix_____.

2.5.3.3 CABINS & TRAILERS:

Reclamation staff administer season long (typically April through October) existing use permits for 4 cabin areas involving 110 cabin sites and 3 trailer areas involving 115 trailer sites. Reclamation policy is not to provide any additional cabin and trailer sites beyond those now in existence or currently approved. Reclamation's overall guidance is provided by 43 CFR 21-Occupancy of Cabin Sites on Public Conservation and Recreation Areas.

A cabin and trailer site permit is a privilege, providing special benefits to a permittee above and beyond those which accrue to the general public. Reclamation assures that fair market value permit fees are collected for the use of the cabin and trailer sites. The 2006 rental rates are \$450 for a trailer site and \$500 for a cabin site.

Fee Determination – Our administrative guidelines (43 CFR part 429) require periodic review of rental fees to assure that they reflect current fair market value for benefits received and administrative cost recovery.

Reclamation will participate in the annual Cabin Association meetings to ensure communication opportunities.

2.5.3.4 GROUP USE:

The group use permits represent a special accommodation to a small segment of the public. Reclamation issues group use permits to the Boy Scouts of America, the Farmers Union Camp, the Prairie Learning Center, the Elgin Lions Club, the Carson Wildlife Club, and the New Leipzig Town and Country.

Yearly meetings with Group Use permittees will be scheduled to maintain lines of communication.

2.5.3.5 CONCESSION MANAGEMENT

The North shore concession area is managed by Reclamation. The concession agreement is put out for bid and the successful bidder is issued a 5 year agreement. For a more detailed look at the concession operation refer to the concession agreement in the appendix.

2.5.3.6 MAINTENANCE

Heart Butte Recreation areas are maintained by Reclamation. On average \$350,000 are spent annually maintaining vault toilets, picnic tables, shelters, and universally accessible facilities. Some funds are for contracts to mow, clean toilets and fire rings, trash pick-up, and pump vault toilets. The Heart Butte staff also mows part of the recreation areas, removes trash, and plants trees as needed.

2.5.3.7 VOLUNTEERS

Volunteers are used to help manage and enhance recreation. Volunteers have helped with tree plantings and litter control of recreation sites, particularly on events such as Earth Day, or Public Lands Day. Camp host's can be implemented as volunteers.

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Efforts are made to include the public as volunteers to heighten participation and improve public lands.

Plans for volunteer help are included in individual management unit plans or are attached as Appendix_____.

2.5.4 SPECIAL CONCERNS

2.5.4.1 RULES AND REGULATIONS

Rules and regulations for Lake Tschida Lands and Waters are posted on signs around the project. They are rules and regulations governing conduct on the Heart Butte Project. They do not supersede or negate any applicable State or Federal regulations.

A copy of the Rules and Regulations is attached as Appendix _____.

2.5.4.2 COLLECTION OF NATURAL RESOURCES

Collection of natural resources, such as, but not limited to, rocks, gems, artifacts, or animal remains, is not allowed on project lands without permission by Reclamation. This may include the issuance of a Special Use Permit. (See section 2.5.4.3).

2.5.4.2.1 FIREWOOD COLLECTION:

Only dead, downed tree branches within the recreational areas may be picked up and used as camp firewood and may only be burned inside fire rings and grills. Firewood may be purchased at the Concession, when available. No cutting of live trees or branches is allowed.

As some older tree plantings age and die, special use permits may be issued to the public to salvage usable firewood and clean up tree plantings in preparation of re-planting the tree rows. If wood cutting permits become available, they will be advertised and issued by the Heart Butte Facilities Manager.

2.5.4.3 SPECIAL USE PERMITS (SUP)

The Reclamation Dakotas Area Office administers numerous types of permits to our external customers, including agricultural, mining,(general, seismic, burrow) crossings(lands, utilities) and activities(i.e. National Guard training). Special use customers are required to enter into a special use permit. An initial application fee is required for Special Use Permits.

Guidance and the process are described in the document “DKAO Guidance for Obtaining a Special Use Permit & the NEPA Process” September 30, 2003. The document is attached as Appendix_____.

2.5.4.4 LOST, FOUND OR ABANDONED PROPERTY

Lost property should immediately be reported to the Heart Butte Reservoir Manager’s office and/or the Grant County Sheriff’s office. Any found items can be turned in at the Heart Butte

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Reservoir Headquarters. Found or abandoned property will be held for 60 days after which it will become the property of Reclamation.

2.5.4.5 MAINTAINING NATURAL AND PRIMITIVE AREAS

There are currently no lands that are designated as natural or primitive lands. Access to project lands is restricted to developed roads and trails, and some areas have only walk in access.

2.5.4.6 GUIDED HUNTING AND FISHING

The state standards for guiding hunting in fishing in North Dakota are in the document “North Dakota Guide and Outfitter Handbook and Test Guide”. It states that “A person may not act as a hunting/fishing guide or hunting/fishing outfitter on federal land without being authorized or permitted as required by the appropriate federal agency.”

2.5.4.7 SIGNAGE

Numerous signs are used to help manage Heart Butte. Any new sign needs must follow Reclamation policy which is contained in the publication “Sign Guidelines for Planning, Design, Fabrication, Procurement, Installation, and Maintenance of Signs for Outdoor Public Use Areas” March 2002.

2.5.4.8 DAY USE AREA MANAGEMENT:

Day use picnic shelters are located in the Rimrock, Downstream and Crappie Creek Recreational Areas. All three are ADA accessible and provide grills and tables. They are available for public use on a first come first served basis for no more than 6 hours within a 24 hour period. These shelters may be reserved for special events provided it does not exclude the general public or violate Reclamation rules and regulations. A special use permit must be acquired from Reclamation to reserve a shelter and may require an application fee.

2.5.4.9 HAZARDOUS WASTE MANAGEMENT

The responsibility for proper management of hazardous waste generated by Reclamation lies with every involved Reclamation employee. Laws and regulations specifically impose liability upon those employees who have direct involvement in generation and management of hazardous waste.

Specific responsibilities are out lined in the “Handbook For Hazardous Waste Management” produced by U.S. Department of the Interior Bureau of Reclamation.

SECTION 3 - - RESOURCES INVENTORY

3.1 NATURAL RESOURCES

3.1.1 GEOLOGY/PALEONTOLOGY:

The Heart Butte Reservoir is located in the Missouri Plateau section of the Great Plains Province (Fenneman 1931), which is characterized by rolling uplands, isolated buttes, sections of badlands, and by terraced stream valleys. Presently, the topography was affected by the movement of glacial ice and streams. In the Heart Butte area, occasional glacial erratics and weathered glacial till are present. This area is less affected by glaciation than the terrain east and north of the Missouri River.

The Heart River is a perennial stream whose valley floor lies about 200 feet below the uplands. The river channel is cut into alluvium, but where it meanders against the main valley walls, there are bluffs of bedrock.

Outcroppings of bedrock in the reservoir area belong to the Paleocene Bullion Creek Formation which is part of the Fort Union Group. This consists of a basal zone of fine sand overlaid by zones of shale, clay, and sand. Large deposits of lignite coal are present in the Fort Union Group. The natural burning of these deposits produces “clinker” or “scoria”, a brick-red porous rock commonly found in the area. Knife River flint, formed by the silicification of lignite, is reported to be associated with Fort Union beds, although in small quantities. Knife River Flint and other sedimentary rock that were important to indigenous cultures are present as outcroppings and gravels. In some areas, the basal sands of the formation are cemented and more resilient than the surrounding materials. This results in occasional shallow rock overhangs. For a more detailed geologic description refer to appendix _____.

In 2002, state paleontologist, John Hoganson, and paleontologist, Jonathan Campbell, surveyed the reservoir (Hoganson and Campbell 2002). They mapped 30 fossil sites. Freshwater mollusks of various species were found at most of the sites, with many of the specimens seen in good condition. At least six of these sites are significant. Thirteen of the sites contained vertebrate animal fossils. All of these are significant because vertebrates are uncommon in Bullion Creek Formations. Several of the discoveries have a high potential for yielding partially articulated fish skeletons or mammal bone. Two other sites are considered significant for plant remains.

Evidence was found of looting, particularly of the latter two sites. Fossil plants are being removed from the one site, and chips off the fossil log are apparent. It is likely that fossil mollusks and vertebrates may be affected as well. Although paleontology is part of geology, illegal looting and vandalism of paleontological sites is similar to that of cultural sites. Both are non-renewable resources from which important information can be lost through such activities. Training of management personnel and monitoring of paleontological sites will be done in conjunction with the cultural resource plan (see page ____).

3.1.2 CLIMATE:

Missouri Plateau, Level IV Ecoregion

Heart Butte Reservoir, on the Heart River, lies within the Missouri Plateau, west of the Missouri River in the Northwestern Great Plains ecoregion as described on the WWW<<http://www.npwrc.usgs.gov/resource/1998/ndsdeco/nodak.htm>>. In contrast to eastern North Dakota, which was influenced by glaciation and sedimentation, this area of southwestern North Dakota totals nearly 20,000 square miles of unglaciated land mass. Elevation of the area ranges from, 1750 to 3300 feet above mean sea level (msl). Temperatures exhibit the “frigid” regime and range from a mean January high of 21 F and mean minimum of -3 F. July temperatures range from a mean high of 83 to a mean minimum of 55. Moisture regime is ustic with a mean annual precipitation of 15 – 17 inches. Mean annual frost free days within the region range from 95 to 130.

3.1.3 SOILS:

Soils in the Lake Tschida watershed are moderately deep to shallow, formed from weathered, loamy glacial till or soft bedrock. In general, soils are moderately fertile to fertile, well drained and susceptible to wind and water erosion.

A small percentage of the Lake Tschida watershed is composed of badlands. Badlands are eroded formations composed of buttes and steeply eroded drainages. Soils are generally thin, formed from sandy and clayey materials. Badland areas are highly susceptible to wind and water erosion.

For a more detailed Soils description and map of Soils distribution refer to Appendix _____.

3.1.4 HYDROLOGY:

Heart Butte Reservoir is fed by the mainstream Heart River. Located about midway on the streams meandering journey to the Missouri River, the reservoir collects runoff from 1810 square miles.

Ground water is available from aquifers in bedrock formations of the late Cretaceous age, 140 to 65 million years ago, (Fox Hills Aquifer) and the Tertiary age, 65 to 1.6 million years ago (Tongue River Aquifer). They are recharged by precipitation in the higher elevations and movement is generally downward and to the north east. The water becomes increasingly saline as it moves from recharge areas toward the discharge areas in the drainage valleys.

The Heart River Valley aquifer is in alluvial deposits of the Holocene age, 10,000 years ago to the present. It is located in the flood plain and terraces of the Heart River. It is recharged by precipitation and high stream flows. (**“Ground-Water Resources of Grant and Sioux Counties North Dakota” by P.G. Randich, USGS 1979**)

3.1.5 VEGETATION:

Missouri Slope. About 75% of the mixed and short-grass prairie of the Missouri Slope has been converted to other uses (USGS 2001). This is probably due to ease of conversion to modern agricultural uses. Historically, undisturbed areas, not modified by the reservoir project or cultivation, may have contained blue grama, wheatgrass/needle grass association, little

bluestem and or prairie sandreed. The reservoir lands within the recreation and cabin/trailer areas are dominated by smooth brome, a highly successful invader species. It appears that brome out competes native vegetation during the short growing season. The western reservoir lands are primarily undulating, mixed grass prairie. Cottonwood and willow are present along the river shoreline above the reservoir. Several woody draws adjacent to the reservoir have bur oak and green ash, with an interspersed of buffaloberry and chokecherry shrubs. The land surrounding the Heart Butte Reservoir project is dominated by dry land farming, haying and grazing operations. Alfalfa, spring wheat, barley, oats, and sunflowers are the predominant crops.

Project lands provide a broad range of habitat types that include lake, river, stream, prairie wetland, and woody draw habitats within the Heart Butte Reservoir Project and vary as the observer progresses upstream from the dam. Cultivated tree plantings and food plots are associated with managed wildlife and recreation areas while native woody draws and riparian timber stands associated with the unmodified Heart River can be found as the observer proceeds upstream from the west end of the lake.

3.1.6 WILDLIFE:

Vertebrates. The Heart Butte Reservoir, regardless of the relatively dry and cool climate supports a diverse mixture of, primarily, mixed grassland, steppe associated wildlife species. Vertebrates of the ecoregion range in size from big game species such as white tailed and mule deer and American pronghorn, to the small mammals of the area such as masked and short tailed shrew and little brown myotis. American Society of Mammalogists lists 47 species of mammals that are likely or suspect residents of the project or project vicinity. Refer to the list of mammals common to Southwestern North Dakota

<<http://www.npwrc.usgs.gov/resource/mammals/mammswnd/mammswnd.htm>> Seabloom et.al.(1978). Endangered or threatened species are discussed separately. The U.S. Geological Survey, Northern Prairie Wildlife Research Center (NPWRC) WWW site lists an array of online resources, inventories, and investigations of vertebrates of the Ecoregion see <http://www.npwrc.usgs.gov> . Refer also to Grondahl, Chris. No Date. Small Mammals of North Dakota. North Dakota Game and Fish Department, Bismarck, ND. Jamestown, ND: Northern Prairie Wildlife Research Center Home Page. <http://www.npwrc.usgs.gov/resource/distr/mammals/mammals/mammals.htm> (Version 15AUG97) and Jones et al (1985).

Birds of the Southwestern Slope Region, describes 36 bird species in Breeding Birds of North Dakota available on the WWW at <http://www.npwrc.usgs.gov/resource/distr/birds/bb_of_nd/bb_of_nd.htm>. Birds occupy virtually all areas and habitats of the Project including grassland, wetland, lacustrine, riverine, and woody habitats. Seabloom et al (1978) lists twelve reptiles and eight amphibians in Vertebrates of southwestern North Dakota <http://www.npwrc.usgs.gov/resource/herps/herpswnd/herpswnd.htm>.

In addition to 13 projects designated wildlife areas there are approximately 4,150 acres of grazing permit lands adjacent to the reservoir that Reclamation actively manages for increased benefit to wildlife. Such diversity in habitats supports a diversity of wildlife species.

Historical Look at Wildlife Management On Heart Butte Reservoir Project Lands – North Dakota Game & Fish Regional Manager of the Heart Butte Reservoir Project area identified pheasants and deer as the species of management interest during their many years of management. Game & Fish expressed further concerns regarding 1) the continued availability of public access to Project lands either through maintenance of existing access roads or purchase of

access agreements with adjacent private landowners and 2) increased management input into and authority over long term dynamics of grazing leases (Bruce Renhowe – NDGF, personal communications 02/28/05.)

3.1.7 THREATENED AND ENDANGERED SPECIES

Both state and federal wildlife specialists and sources were consulted (Stewart, Robert E. 1975). The U.S. Fish and Wildlife Service (Service) list of endangered and threatened species potentially effected by management actions at the Heart Butte Reservoir include the bald eagle (*Haliaeetus leucocephalus*), whooping crane (*Grus americana*), and black footed ferret (*Mustela nigripes*). However, there are no resident, federally listed, threatened or endangered species or critical habitats designated within the project.

Bald Eagle

Distribution and Abundance – The bald eagle is listed as threatened in all of the lower 48 states by the Service (Federal Register 1995) and was proposed to be removed from the list of Threatened and Endangered Wildlife (Federal Register 1999). Preferring forested habitats near bodies of water, the breeding population of bald eagles in North Dakota is primarily concentrated on the Missouri River between Garrison Dam and Ft. Yates. Bald eagle activity in and around the Project is primarily comprised of transient migrating individuals. The popularity of Lake Tschida with outdoor recreationists during the Spring and Summer months coincides with the nesting period. The historic level and duration of human recreation activity may deter breeding bald eagles from establishment around the Project. Other areas of the Heart River provide more seclusion and security including the upper reaches of the project lands. However, no breeding bald eagle activity has been recorded for the Project lands or the immediate vicinity.

Bald eagles may pass through any part of the state during migration. These large birds commonly winter near open water that affords a source of prey including fish and waterfowl and where protection and large trees afford adequate protected roosting sites. A source of prey alone may not be sufficient to attract or support birds to the area for purposes of nesting.

Whooping Crane

Distribution and Abundance – The whooping crane is a Federally listed species and was among the first group of birds listed as endangered species under the Endangered Species Act in 1966 (<http://endangered.fws.gov/1966listing.html>). Most sightings of whooping cranes occur during migration in the western half of North Dakota. Breeding whooping cranes were last documented in North Dakota in 1915. Today only two populations exist in the wild. Individuals belonging to the Wood Buffalo – Aransas, Texas population migrate through the Dakotas twice a year, spring and fall.

Species of Concern

North Dakota Department of Parks and Recreation, home to the Natural Heritage Database for North Dakota provided Reclamation with a list of the State's species of concern (Figure 1 wildlife), including one endangered species associated with the presence of prairie dogs

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(Mammals of North Dakota ASM online resource). However, black footed ferret is considered extirpated in North Dakota.

Invertebrates – Mollusks No invertebrate information, specific to the Heart Butte Reservoir or southwest region of North Dakota was identified during literature research for this RMP.

Figure 1wildlife. North Dakota Department of Parks and Recreation results of Natural Heritage Database query for unique flora and fauna associated with the Heart Butte Reservoir project lands and immediate vicinity.

3.1.8 FISHERIES

Fisheries: Fish species in the Heart River and Heart Butte Reservoir include northern pike, tiger muskie, walleye, white bass, crappies, bluegill, sauger, perch, catfish, carp, suckers and bullhead. Increased flows in the Heart River, due to irrigation releases from Heart Butte Dam, have enhanced the fishery conditions in the river, and both the river and reservoir are recognized as major fisheries in the state. In 1962, the Fish and Wildlife Service in an initial follow up report on the “Fish and Wildlife Resources of Heart Butte Reservoir” stated “Prior to construction of the Heart Butte Dam the fishery resources of the Heart River were meager because of the intermittent nature of the stream>>> The only fishing was in the first 5 miles above its junction with the Missouri River; the last mile or 2 of this was influenced by backwater from the Missouri River. The rest of the stream was fishable only at spawning time under the influence of snowmelt.(Summary Briefing Lake Tschida (Heart Butte Reservoir) North Dakota)

Sport fishing has been enhanced by the Department’s stocking program which began in 1950 and continues today. The Department realized the need to find a forage fish which can reproduce in a mud stratum and provide a greater food source for predatory game fish. The Gizzard Shad fit that forage niche. It is a prolific breeder in mud bottom and does not overwinter in cold climate waters. The Gizzard shad was introduced into Lake Tschida in 2004 and again in 2005. (Fish Stocking report / 10/18/05 Heart Butte Reservoir (Lake Tschida) 1950 through 2005 Emil Berard NDGF)

The North Dakota Game and Fish Department Fishery Management Plan is included in Appendix____.

3.2 CULTURAL RESOURCES

3.2.1 HISTORIC AND PREHISTORIC CULTURAL RESOURCES

The National Historic Preservation Act (NHPA) and other laws, regulations, executive orders, and guidelines specify Reclamation’s role and responsibility in the management and protection of cultural resources on public lands such as those being addressed in the Heart Butte Reservoir RMP. Cultural resources, as defined in the NHPA, are archaeological, historical, or architectural sites, buildings, structures, objects, and districts, or properties of traditional religious and cultural importance to Native Americans.

An archaeological site may be defined as containing “material remains of past human life, such as artifacts, structures, plant and animal remains, and other archeological resources (Hutt et.al. 1992:13).” Items or features at a site may be dated to a single episode within prehistory or history, or more than one occupation may be represented, labeling the site multi-component. Some multi-component sites contain both prehistoric and historic elements. Archaeological sites that consist of artifacts spread over an area, rather than structures, are defined as artifact scatters. The State Historical Society of North Dakota (SHSND) defines sites with less than ten artifacts and no possibility of buried cultural deposits or other remains as isolated finds, and reported but unconfirmed sites are labeled as site leads.

3.2.1.1 OVERVIEW OF THE PREHISTORY AND HISTORY OF THE AREA

The State of North Dakota's archaeological plan, *The North Dakota Comprehensive Plan for Historic Preservation: Archeological Component*, divides the state into regions, and describes the archaeological context of each region (SHSND 1990). Study units are usually defined by river drainage patterns and, predictably, the Heart Butte Reservoir is contained within the Heart River Study Unit.

The earliest recorded cultural resource survey in the area was done by Cooper in 1946 in connection with the Smithsonian Institution River Basin Surveys along the Missouri and its tributaries before the reservoir was complete. Historic Research Associates (HRA), the University of North Dakota (UND), past Reclamation archaeologists, and avocational archaeologists have also played important roles in developing the reservoir's cultural time line. While some sites were inundated by the reservoir, inventory and protection of significant cultural resources continues to be an ongoing concern on Reclamation lands. Some places have been covered more than once, test excavations have been done on selected sites, and an eroding prehistoric site along the bank of the Heart River was stabilized.

Four prehistoric time periods, as well as proto-historic and historic periods, have been classified through studies of archaeological sites. They are: *Paleo-Indian*, *Archaic*, *Plains Woodland*, *Plains Village*, *Proto-Historic (includes Equestrian)*, and *Historic*. Table 1 contains a generalized description of past lifestyles and the types of sites that are found associated with each time period, followed by a brief overview of what is known about the prehistoric use of the study units.

PERIOD	DURATION	DESCRIPTION	SITE CHARACTERISTICS
Paleo-Indian	12,000 to 8,000/7,500 years bp (before present)	Nomadic hunter-gatherers who hunted extinct species of animals.	Sites contain plant and animal remains and distinctive tools and projectile points
Early Archaic Middle Late	7,500 to 5,000 years bp 5,000/3,000 years bp 3,000-2,000/1,500 years bp	Nomadic, generalized hunter-gatherers who hunted "modern" animals and gathered plants. Used the spear thrower (atlatl).	Includes occupation sites and lithic scatters
Early Plains Middle Woodland Late	2,500 to 2000 years bp, 100 BC to AD 600 AD 600 to 1650	Increased sedentism, introduction of horticulture, ceramics, and bow and arrow.	Includes earthen mortuary mounds, artifact scatters, rockshelters, tepee rings
Plains Village	AD 1000 to 1850	Increase in horticulture and seasonal bison hunts and resource acquisition trips	Exemplified by earthlodge villages along rivers
Nomadic Equestrian/ Proto-historic	AD 1650-1850	Non-Indian trade goods. Introduction the horse and equestrianism	Sites contain manufactured metal artifacts obtained through trade.

Historic	Circa AD 1750 to Present	Non-Indian immigration and technology into the area. Intensive agriculture, ranching and early irrigation systems	Railroads, farmsteads, small towns. Irrigation canals.
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Table 1

3.2.2. CULTURAL RESOURCE PROPERTIES

For Reclamation lands around the reservoir, most of the major periods in the cultural timeline are represented by one or more sites. It is only the very early Paleo-Indian, the beginning of the Archaic, and the Early Plains Woodland for which there are no known sites. These breaks in the prehistoric record may be explained by severe drought, thick soil deposition, or sites may have been found, but no diagnostics were recovered and so their time period is listed as unknown. The last reason is why Equestrian is not listed with the other three time periods. Given the number of sites which generally appear to date within the Plains Village and Equestrian time periods, there is a reasonable certainty that some are Equestrian, even though no diagnostics specific to Equestrian tribes have been found.

Certainly Reclamation lands attracted people throughout prehistory. Waterways were used as transportation avenues before the arrival of the horse. The area had herds of bison and other game animals and lithic resources for tools, and except during severe droughts, the present reservoir area would have been important for hunting and resource extraction. Most of the sites found would have served as short term campsites or for specialized occupations like stone tool manufacture. Some sites were inhabited more than once. No residential bases have been found. The information at present indicates that longer term occupations of the Plains Woodland and Plains Village tribes were elsewhere. The sites here reveal how people lived away from their horticultural villages. Nomadic tribes with horses also made use of the same resources as their more sedentary neighbors. Based on historical, archaeological and ethnographic evidence for the last several hundred years, Mandan, Hidatsa and later Arikara, and Dakota, Lakota and Yanktonai Sioux were seasonal and nomadic occupants along the Heart River. Other tribes may have traveled through occasionally as well (United States Geological Survey 1978; Schneider 2002).

Later, the grasslands, river, and proximity to the railroad encouraged historic settlement. Although most of the sites located within Reclamation lands have been prehistoric, there are a few historic sites. One of them was a store/post office named Worms for the German city by that name, but the others were all homesteads for farmers and ranchers. All are in various stages of disrepair (Wick 1988).

3.2.3 PROPERTIES OF TRADITIONAL RELIGIOUS AND CULTURAL IMPORTANCE TO NATIVE AMERICANS

In 1992 the NHPA was amended to address the concerns of Native Americans with respect to sites that have religious or cultural importance. The common term for such sites is Traditional Cultural Properties (TCPs). Such sites often differ from other cultural resource sites because they may often lack material remains, such as artifacts, or they may be of recent origin.

Such sites often can only be identified through interviews of tribal elders and keepers of traditional knowledge. Other sources of information are the accounts of explorers and traders, and the research of historians, ethnographers and anthropologists. Some tribal members may differentiate between *traditional* sacred sites and *contemporary* sacred sites to distinguish between areas of *historical use* and those of *current use*. NHPA does not recognize this distinction.

Heart Butte located to the north of Reclamation lands around the Heart River qualifies as a TCP. According to Mandan tradition as reported to Bowers in 1950 by Scattercorn, a female Mandan priest, the creator Lone Man named Heart Butte and called it the heart, or center, of the world. In addition, Plochman (et al 1982) reports that an informant described a turtle rock effigy for HRA that was destroyed by highway construction about a mile north of the dam. Toom (et al 1999) states that such forms can be attributable to the Hidatsa tradition. No TCPs are known within Reclamation lands, although some may exist. Elgin Crows Breast, the Cultural Preservation Officer for the Three Affiliated Tribes, works with Reclamation on cultural issues on the reservoir.

3.3 RECREATION RESOURCES

3.3.1 FACILITIES

The recreation lands (224.4 acres) at Heart Butte Reservoir are managed by Reclamation. In that 224.4 acres there are 9 recreation areas that provide opportunities for camping, fishing, swimming, picnicking, and hiking. All recreation areas are primitive in nature providing no shower facilities or electric campsites. The 4 major recreation areas (Rimrock, Downstream, Crappie Creek and Schatzs point all have picnic shelters and universally accessible facilities. There are vault toilets, picnic tables, fire rings and potable water is available at 4 of the recreation areas. There is a RV dump station at Rim Rock and a nice overlook that gives a great view of the reservoir. The public may use the recreation resources without charge.

3.3.2 CABIN AND TRAILER AREAS

Cabin Area 1 consists of 19 developed cabin sites.

Cabin Area 2 consists of 29 developed cabin sites.

Cabin Area 3 consists of 52 developed cabin sites

Cabin Area 4 consists of 10 developed cabin sites.

Trailer Area 1 consists of 38 trailer sites.

Trailer Area 2 consists of 43 trailer sites.

South Side Trailer Area consists of 33 trailer sites.

Further description in Section 4.7.1

3.3.3 GROUP USE AREAS

Prairie Learning Center
Boy Scouts of America Camp
Carson Wildlife Club
Elgin Lions Club
North Dakota Farmers Union Camp
New Leipzig Town & Country Booster Club

Further description in Section 4.7.2

3.3.4 CONCESSION

North Shore Concession: This area has a boat ramp, dock, and vault toilet. A full service fish cleaning table with electric and water is provided. The concession provides fuel with a boat courtesy dock for fueling. Also, bait and some tackle for fishing. The concession provides a small amount of food, drinks and other sundry items. The concession meets all ADA requirements.

Marina boat/pontoon mooring is allowed by permit in the bay east of the concession(at the concessionaire's discretion).

SECTION 4 - - RESOURCES ANALYSIS

4.1 LAND USE SUITABILITY AND CAPABILITY

Historic land uses have been primarily agriculture. Livestock grazing, haying and farming small grains and row crops are the dominant uses. Development of recreation and other facilities is limited by two major factors, slope and soil type. The slope and soil types vary throughout the management area. These subjects are summarized in the Section 3.1.1 Geology/Paleontology and Section 3.1.3 Soils, respectively.

A map of soil type is included as appendix _____ and a map of slopes is included as appendix ____.

Development is also restricted by the elevation of the flood pool. A map of the flood pool elevation is in Appendix ____.

4.2 CONSTRAINTS TO DEVELOPMENT AND MANAGEMENT

Development and management of Heart Butte Reservoir is constrained primarily by the fact that a management partner is not present. Reclamation is restricted to providing only the minimum basic facilities for health and safety reasons as described in Public Law 8972 (PL 8972).

On going efforts are being made to identify a managing partner, however, until that goal is realized, new development will be limited to conform to the current regulations.

4.3 AREAS OF SPECIAL INTEREST

4.3.1 INDIAN TRUST ASSETS

Indian Trust Assets (ITAs) are defined as “legal interests in property held in trust by the United States for Indian tribes or individuals.” This definition is contained in a policy directive on ITAs issued by the Commissioner of the Bureau of Reclamation on July 2, 1993. Examples of ITAs include lands, minerals, timber, hunting and fishing rights, water rights, and in stream flows. This definition parallels that for “trust resources” in the implementing regulations for the Indian Self-Determination and Education Assistance Act, 25 CFR Part 900.6:

Trust resources means an interest in land, water, minerals, funds or other assets or property which is held by the United States in trust for an Indian tribe or an individual Indian or which is held by an Indian tribe or Indian subject to a restriction on alienation imposed by the United States.

Knowledge of which tribes used the Heart River is restricted to historical and archaeological evidence starting about 300 years ago. The United States Geological Survey (USGS) historical Land Claims map based on determinations of the Indian Claims Commission shows Arikara, Mandan and Hidatsa on the north side of the Heart River and Dakota Sioux on the south side (USGS 1978). Schneider’s overview adds the Lakota and Yanktonai Sioux as inhabitants after the 1820s (Schneider 2002).

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Presently, members of the Three Affiliated Tribes (Arikara, Mandan and Hidatsa) reside on the Fort Berthold Reservation to the north of the reservoir. Members of the Sioux tribes live at the Spirit Lake Nation to the northeast and Standing Rock Reservation to the southeast.

No ITAs have been identified within Reclamation's Heart Butte Reservoir lands.

4.4 RECREATION NEEDS AND DEMANDS

The summer of 2004 and 2005 DKAO conducted a recreational survey. The results showed the public would like to see restroom/shower facilities, electrical campsites, and playground equipment. Other notables were more fish cleaning stations, hiking and biking trail, potable water hook-ups, and reserved shelters.

Most of the public surveyed wanted these facilities at the 4 major recreation areas (Rimrock, Downstream, Schatz's point, Crappie Creek).

Reclamation does not have the authority to provide most of the facilities requested by the public. DKAO has authorization to provide "minimum basic facilities". Minimum basic facilities are defined as those required for public health and safety, stating "that proper expenditures when protecting or preserving Federal property and the public would also include boat ramps, picnic tables, beach areas, sanitation facilities, and parking areas". If a managing partner was present Reclamation could cost-share 50 percent of the development cost on these recreational facilities requested by the public.

4.5 ANTICIPATED VISITATION

Visitor use hours at Heart Butte reservoir have about doubled from 1982 (when traffic counts were first started) until the present. The reservoir is currently seeing approximately 1.6 million visitor use hours per year in the campgrounds and 5 million visitor use hours in the cabin and trailer areas. Visitor use hours have shown a slight decline since 2003 when visitor use hours reached a high of 1.8 million in the campgrounds and 5.5 million in the cabin and trailer areas. It is anticipated that, unless major changes occur, visitor visitation to the reservoir will remain fairly stable.

4.6 FISH AND WILDLIFE NEEDS

4.6.1 Multiple Resources Management

Heart Butte has 6,575 upland acres managed for multiple resources. Reclamation will strive to improve the vegetation and water quality in the Heart Butte area to enhance fish and wildlife needs. Native grass pasture makes up the majority of these acres. Beginning in 2006, these pastures will be rotationally grazed to improve plant vigor and health and to allow annual re-growth to provide wildlife cover. This grazing system should also allow woody draws to rejuvenate and thicken up, providing additional cover and food for wildlife. Some areas deemed "environmentally sensitive" may only receive grazing treatments once every several years. Annual monitoring of the pastures will be performed and adjustments will be implemented if necessary.

A copy of a grazing permit is attached as Appendix _____.

4.6.2 Tree plantings

Tree plantings were established back in the 1950s by NDGF. These plantings are becoming old and many of the trees are dead or dying. These plantings should soon be rejuvenated.

4.6.3 Food Plots

Numerous food plots are also included in the wildlife areas. Most of them are being cropped by local cooperators, with 30% being left for wildlife use. These food plots would better be utilized if additional trees were planted to provide wildlife cover, and protection for a smaller food plot that could be left in its entirety. Food plots could then be planted by Reclamation staff or a cooperator in exchange for haying acreage.

A Copy of an agreement for food plots is attached as Appendix_____.

4.6.4 Haying

750 acres of idle grasslands also exist and will be hayed approximately once every four years to rejuvenate the grass stands.

A Copy of an agreement for haying is attached as Appendix_____.

4.6.5 Noxious Weeds

Noxious weeds (leafy spurge, wormwood, Canada thistle) currently infest approximately 1800 acres. Annual spraying and use of biological agents are being used and will continue to be used in the future to control these infestations. The use of flea beetles on leafy spurge was introduced in 1991. They have reduced the densities of the weed and allowed spraying operations to be concentrated on preventing the spread to non-infested areas. Canada thistle is becoming more of a problem and will require additional control methods in the future. A single salt cedar tree was discovered in 2003 and eradicated. Shoreline searches are performed annually to attempt to locate and eradicate any salt cedar plants before they become established.

The Integrated Pest Management Plan is attached as Appendix _____.

4.6.6 Fisheries

Fisheries management on the lake is performed by the North Dakota Game and fish Department (See 3.1.8 Fisheries)

4.7. OTHER LAND USE DEMANDS

4.7.1 CABIN AND TRAILER SITES

There are currently three trailer areas and four cabin areas located along the shoreline of Heart Butte Reservoir. The trailer areas contain 115 lots and cover approximately 50 acres, while the

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cabin areas contain 110 lots and cover approximately 150 acres. Permits will be reviewed at the discretion of Reclamation permit every five years as long as they adhere to permit rules and requirements. Permits may be transferred, upon approval by Reclamation, to another upon purchase of the trailer or cabin, the lot itself is the property of the United States Government and may not be sold or bartered. These cabin and trailer lots are seasonal, to be occupied between April 1 and October 31 of each year.

4.7.1.1 HEALTH AND SAFETY CONCERNS AT CABIN SITES

Regulation of many health and safety concerns at cabin and trailer sites are covered in the Special Use Permit. Boat docks, stairways, and general site safety are subject to inspection by Reclamation staff. Septic systems require inspection and approval by the Custer District Health Department.

4.7.2 GROUP USE AREAS

Six group use areas have also been established at Heart Butte. These areas provide recreational opportunities for organizational group activities. The six organizations currently holding these permits are: Northern Lights Council of the Boy Scouts of America, Carson Wildlife Club, Elgin Lions Club, New Leipzig Town & Country Boosters Club, ND Farmers Union and Prairie Learning Center. These permits are renewed on a five year basis and are not transferable.

4.7.3 LAND USE AUTHORIZATIONS AND LAND DISPOSAL

Land use authorizations include easements, leases, licenses, and permits which allow others to use Reclamation lands, facilities, and water surfaces. Land use authorizations are discretionary and must conform to the requirements contained in 43 CFR 429 and Reclamation Directives and Standards for Land Use Authorizations (LND 08-01). Issuance of land use authorizations require that Reclamation collect administrative fees and receive fair market value for the use of its lands.

Land use authorizations would not be issued when it is determined that the proposed use is incompatible with authorized project purposes, or where the proposed use poses health and safety concerns, results in unacceptable impacts to the environment, results in private exclusive uses, violates state, Federal, or local laws, regulations, ordinances, or zoning requirements, jeopardizes the interests of the United States, is an existing unauthorized use, the use will result in other adverse and unacceptable impacts, or where other alternatives are available. If a use authorization is granted, it is the policy of Reclamation to grant the least estate possible necessary to accommodate the intended use. Generally, this means that Reclamation will only issue a permit or a license, and will not issue leases or easements or other contractual documents that convey an interest in real property.

In regard to roads, telecommunication sites, microwave towers, transmission lines, and linear facilities, Reclamation will not issue any land use authorizations for these uses that do not clearly compliment the goals and recommendations contained in this plan. In the event electrical utilities are permitted they would be buried, or if constructed above ground, they would be constructed and only permitted if they do not interfere with the visual and aesthetic components of the landscape. All above ground utilities would provide measures of safety for the public and

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for wildlife species. All land use authorizations would be considered on a case by case basis, and issued at the sole discretion of Reclamation.

All reservoir lands are currently needed for project purposes and are not available for disposal thru sale, lease, or transfer to any other person, agency, or entity. In the event any of the lands within the reservoir are determined by Reclamation to be excess to project needs Reclamation would follow standard General Service Administration procedures to dispose of the lands. This process requires that any excess lands be first offered to other Federal or State agencies, then to local counties or municipalities, and lastly thru sale at public auction to the highest bidder. In the absence of enabling legislation, and until such time as the land is no longer needed for these authorized project purposes, they cannot be disposed of or transferred out of federal ownership.

The descriptions of the land use authorizations are defined in the individual contracts or agreements. Specific locations of these land use authorizations can be found on the map attached as appendix ____.

4.7.4 NO NEW EXCLUSIVE USE

Exclusive use is any use that excludes other appropriate public recreation use or users for extended periods of time. Exclusive use includes, but is not limited to, boat docks, cabins, trailers, manufactured or mobile homes, structures, roads, or other amenities that are determined by Reclamation to be exclusive use. Reclamation's Recreation Management Policy (LND P04) state "Prohibit new exclusive uses and eliminate existing exclusive uses, as allowed by current use agreements, to maximize public recreation opportunities, facilities, and services. Any new use, facility, service or site determined by Reclamation to be exclusive use shall not be allowed."

4.8 DETERMINATION OF FACILITY REQUIREMENTS

4.8.1 ADA ACCESSIBILITY

Heart Butte facilities have recently undergone an accessibility audit. Most of the facilities comply with the minimum ADA Accessibility Guidelines. A list of the facilities and their compliance is included as Appendix_____.

All areas of newly designed or newly constructed buildings and facilities and altered portions of existing buildings and facilities shall comply with the minimum requirements of the "ADA Accessibility Guidelines for Buildings and Facilities (ADAAG)".

4.9 ENVIRONMENTAL IMPACTS

The Resource Management Plan is an effort to document current management practices. Any new or significant changes will be addressed through the NEPA process, at which time; any environmental impacts will be addressed.

There are no expected environmental impacts due to the implementation of the RMP.

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4.10 LAND USE ISSUES

4.10.1 OFF ROAD VEHICLES (ORVS):

The operation and use of off-road vehicles on Heart Butte Reservoir lands is prohibited with the following exceptions:

1. ORVs may be used by government employees in conjunction with performance of their official duties.
2. ORVs may be operated on gravel roads if properly licensed and equipped according to North Dakota century code 39-20.
3. ORVs (snowmobiles, 4-wheelers, etc.) may be operated on the lake only, when winter ice conditions permit, in conjunction with ice-fishing activities.
4. ORVs may be used by grazing permit holders to move cattle and check fence.

4.10.2 ACCESS

Access to public lands at Heart Butte is restricted by the condition of existing roads and the slope of the terrain. Many of the lands, especially in the western management units, are only accessible by foot.

Access across public lands will not be granted to benefit private interests.

4.10.3 Oil, Gas and Mineral Exploration

Consumer demands for oil, gas and other mineral resources are likely to increase in the future. As a result, it is possible there may be requests from the oil and gas industry to explore and/ or develop leasable minerals within the Heart Butte RMP area. Requests to lease Federal oil and gas resources are administered by BLM in coordination with the surface management agency. Reclamation normally consents to oil and gas leasing on its lands unless it would interfere with or adversely affect authorized project purposes. In cases where Reclamation's consent is given, Reclamation requires that the leasee adhere to its GP-135 Special Stipulations and Form 3109-1 Lease Stipulations (Appendix__). These stipulations are provided to BLM in advance of their approval of the oil and gas lease.

Pursuant to Section 10 of the August 4, 1939, Reclamation Project Act (53 Stat. 1187) Reclamation has authority to administer project sand and gravel mineral resources, and may issue permits for removal of these resources, at its sole discretion.

4.11 ECONOMIC ANALYSIS

The RMP is only a documentation of current management practices. Existing practices are not being significantly changed. Therefore, no significant change to the current economic trend is expected to be caused by the implementation of the RMP.

4.12 SURROUNDING LAND OWNERSHIP AND LAND USE

Land surrounding the Heart Butte management units is privately owned. It is primarily used for agricultural purposes such as, livestock grazing, hay land, farming of small grains and row crops, and CRP. There is one area, bordering the south western management units, that is owned by a private hunting club. There are two private cabin areas, the Corey Roth development and the Kitzan development, bordering the north side of the reservoir lands.

A map showing ownership of adjacent lands is attached as appendix_____.

4.13 OTHER STUDIES

In the past there has been different studies conducted at Heart Butte. Two recent studies are the Reclamation Reservoir Study, a water quality study, and an Archeological Excavation at the Bead Maker site. There are currently no Reclamation studies underway at Heart Butte.

The North Dakota State Health Department does periodic water quality monitoring on Heart Butte as well as monitoring the water quality above and below the reservoir. The last time the reservoir was sampled was in 2000-2001. The report on that study is attached as appendix_____. The sample collection is done every 5-10 years, so another round of sampling is forth coming.

SECTION 5 - - DESIGNATION OF LAND USES

5.1 OPERATIONS UNITS

There are two units managed as Operations Units at Heart Butte. Operations units are primarily used in operations of the reservoir. The units included as Operations Units are:

MU 001
MU 002

Specific descriptions of the units, the 5 year management plan and the long term plan are included in Section 6.

5.2 MULTIPLE USE UNITS

There are seventeen units managed as Multiple Use Units at Heart Butte. Multiple Use Units are managed for wildlife and recreational purposes.
The units included as Multiple Use Units are:

MU 003
MU 005
MU 011
MU 016
MU 017
MU 020
MU 021
MU 022
MU 023
MU 024
MU 025
MU 026
MU 028
MU 031
MU 033
MU 035
MU 037

Specific descriptions of the units, the 5 year management plan and the long term plan are included in Section 7.

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5.3 RECREATION UNITS

There are nine units managed as Recreational Units at Heart Butte. Recreational Units are those units that are managed specifically for recreational opportunities for the general public. The units included as Recreation Units are:

MU 004
MU 013
MU 015
MU 027
MU 029
MU 030
MU 036
MU 038
MU 039

Specific descriptions of the units, the 5 year management plan and the long term plan are included in Section 8.

5.4 GROUP USE UNITS

There are six units managed as Group Use Units at Heart Butte. These areas provide recreational opportunities for organizational group activities. The permits are renewed on a five year basis and are not transferable. The Units included as Group Use Units are:

MU 006
MU 007
MU 008
MU 010
MU 012
MU 018

Specific descriptions of the units, the 5 year management plan and the long term plan are included in Section 9.

5.5 CABIN SITES UNITS

There are five units that are managed as Cabin Sites Units at Heart Butte. Included in the units are the three trailer areas and four cabin areas located along the shoreline of Heart Butte Reservoir. The trailer areas contain 115 lots and cover approximately 50 acres, while the cabin areas contain 110 lots and cover approximately 200 acres. Permit holders are allowed to renew their lot permit every five years as long as they adhere to permit rules and requirements. Permits may be transferred to another upon purchase of the trailer or cabin, the lot itself is the property of the United States Government and may not be sold or bartered. These cabin and trailer lots are considered seasonal and may only be occupied between April 1 and October 31 of each year. The Units included as Cabin Sites Units are:

MU 009

MU 014

MU 019

MU 032

MU 034

Specific descriptions of the units, the 5 year management plan and the long term plan are included in Section 10.

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SECTION 6 - - OPERATIONS UNITS MANAGEMENT AND DEVELOPMENT

MU 001

MU002

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SECTION 7 - - MULTIPLE USE UNITS MANAGEMENT AND DEVELOPMENT

**MU 003
MU005
MU011
MU016
MU017
MU020
MU021
MU022
MU023
MU024
MU025
MU026
MU028
MU031
MU033
MU035
MU037**

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SECTION 8 - - RECREATION UNITS MANAGEMENT AND DEVELOPMENT

MU004

MU013

MU015

MU027

MU029

MU030

MU036

MU038

MU039

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SECTION 9 - - GROUP USE UNITS MANAGEMENT AND DEVELOPMENT

MU006

MU007

MU008

MU010

MU012

MU018

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SECTION 10 - - CABIN SITES UNITS MANAGEMENT AND DEVELOPMENT

MU009

MU014

MU019

MU032

MU034

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SECTION 11 - - APPENDICES

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Heart Butte Reservoir Resource Management Plan Appendix

- A. Glossary
- B. Rules and Regulations
- C. Map of Management Units
- D. Public Involvement
- E. Flood Control Plan
- F. Vegetative Plans
 - 1. Haying agreement
 - 2. Food plot agreement
 - 3. Grazing Permit
 - 4. Integrated Pest Management Plan
- G. Geology Section/ Slope Map
- H. Soils Section/ Soils Map
- I. Land Use Authorizations map
 - 1. Group Use Permit
 - 2. Concession Agreement
 - 3. Trailer Permit
 - 4. Cabin Permit
 - 5. DKAO Guidance for Obtaining a Special Use Permit and the NEPA Process
- J. Adjacent Land Ownership Map
- K. GP-135 Special Stipulations and Form 3109-1 Lease Stipulations
- L. Lake Water Quality Assessment for Lake Tschida 2005
- M. ADA accessibility compliance of facilities.
- N. Fire Management Plan
- O. Volunteer Plans
 - 1. Earth Day
 - 2. Public Lands Day
 - 3. Camp Host
 - 4. Eco-ed Day
- P. Telephone Numbers
- Q. Scientific Names of Plants and Animals used in the Document
State Threatened, Endangered, and Rare Plants and Animals
- R. Bibliography

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